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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/009,768	01/20/1998	TAKAYUKI KIJIMA	PMS245024	7858
909	7590	06/18/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			MOE, AUNG SOE	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	

2612 25
DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/009,768

Applicant(s)

KIJIMA ET AL.

Examiner

Aung S. Moe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-17, 19-24, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-17, 19-24, 39 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments, i.e., see page 5 of the remarks, filed on March 31, 2004, with respect to claims 39-40 have been fully considered and are persuasive. The rejection under 35 U.S.C. 112, first paragraph, of claims 39-40 has been withdrawn.

Furthermore, the translation of Japanese Priority Document 09-007831 has been fully considered and is persuasive, thus, the art rejection of claims 15 and 24 as set forth in previous Office has been withdrawn.

2. Applicant's arguments with respect to claims 15-17, 19-24, 39 and 40 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The Examiner has noted the copy of a terminal disclaimer filed in U.S. Application No. 08/961,408 (Now U.S. Pat. No. 6,661,451 B1), however, there are situations where non-statutory double patenting rejections are made not to prevent an unjustified extension of the patent term but rather to require all patents in a double patenting situation to remain commonly assigned during the patent term.

In *In re Van Ornum*, 214 USPQ 761, at 769 (CCPA 1982), the court states, in the discussion about the non-alienating provision of 37 CFR § 1.321(c) dealing with terminal disclaimer, that, besides preventing unjustified extension of the right to exclude others, other objectives of the doctrine of non-statutory double patenting include preventing "possible harassment by multiple assignees, inconvenience to the Patent Office and the possibility that one might avoid the effect of file wrapper estoppel by filing a second application." Also, in *Van Ornum*, supra, the court comments with approval on paragraph (b) of 37 CFR § 1.321 [now 37 CFR § 10321 (c)] which requires that the patent(s) being disclaimed and the patent(s) in the double patenting situation be commonly owned during the enforceable term(s) of the patent(s) being disclaimed.

Therefore, a Terminal Disclaimer is necessary in order to overcome an actual or provisional rejection on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application.

4. Claims 15-17, 19-24 and 39-40 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,661,451 in view of Whipple et al. (U.S. 5,926,215).

Regarding claim 15, it is noted that although the conflicting claims 1-7 of U.S. Patent No. 6,661,451 are not identical to the claim 15 of the instant application, they are not patentably distinct from each other because both claimed invention called for an electronic imaging system comprising: a solid-state image sensor (i.e., noted that the optical system, pixel signal output means, and information processing means and trigger means are considered an inherent feature of the electronic imaging system) and control means (i.e., drive control means as claimed in the instant application) for controlling different operation modes, such that a mode for sequentially reading all of the pixel signals for each horizontal line in a vertical direction, a mode for outputting only the electronic pixel signals for n lines per m lines (wherein $m > n$ and $m > 3$) and adding the n lines a vertical direction (i.e., noted the summing of n lines as recited in the instant calmed invention), and a mode for causing the solid state imaging device to add adjacent 'q' lines in units of "q" successive lines (i.e., noted the summing of "n" lines in "k" as recited in claim 15 of instant application) in the vertical direction and output pixel signals corresponding to horizontal lines in the vertical direction as substantially described and connected in the Claims 1-7 of U.S. Pat. '451 and claim 15 of the instant application.

Furthermore, it is noted that although claim 2 of U.S. Pat. '451 stated the use of "a Bayer configuration color filter, claims 1-7 of copending application 08/961,408 do not explicitly recite the obviously well-known features, such as the use of "a color filter element having a line sequential primary color mosaic pattern" as recited in present claimed invention.

However, the above-mentioned claimed feature is well known in the art as clearly evidenced by Whipple '215. In particular, Whipple '215 teaches the use of a color filter

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arranged on an incident plane of the solid-state image sensor (see Fig. 3 of Whipple '215) having a line sequential primary color mosaic pattern as claimed.

In view of the above, having the well-established teaching of Whipple '215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as described in claims 1-7 of U.S. Pat. '451 as taught by Whipple '215, since Whipple '215 states at col. 1, lines 55+ that such a modification would increase sensitivity while decreasing image memory, and recording of the color image can be realized.

Regarding claim 16, the combination of claims 1-7 of U.S. Pat. '451 and Whipple '215 show a mode of reading plurality of 'k' line blocks each of 'k' lines in the whole lines for the still picture recording or dynamic image processing (i.e., see claims 1-7 of U.S. Pat. '451; and Fig. 5 of Whipple '215).

Regarding claim 17, the combination of claims 1-7 of U.S. Pat. '451 and Whipple '215 show image data obtained by reading out the pixel signal sums said each of 'n' lines among 'm' vertically continuous lines for still picture recording or said dynamic image processing (i.e., see claims 1-7 of U.S. Pat. '451; and Fig. 5 of Whipple '215), is such that its color signal is line sequential data (i.e., see Figs. 3 and 5 as taught by Whipple '215).

Regarding claim 19, the combination of claims 1-7 of U.S. Pat. '451 and Whipple '215 show the n lines for addition are constituted by the same color filter (i.e., It is clearly obvious from Fig. 5 of Whipple '215, it is obviously well known at the time of the invention was made to add the n lines of the same color filter as claimed, thus, claim 19 is considered obvious for the same reason as discussed for claim 15 as above.)

Regarding claim 20, the combination of claims 1-7 of U.S. Pat. '451 and Whipple '215 show the n addition lines are constituted by the same color filter (i.e., see the Examiner's comment with respect to claim 19 as discussed above), and different n line addition filters are provided for every said m lines (i.e., see claims 1-7 of U.S. Pat. '451; and Fig. 5 of Whipple '215).

Regarding claim 21, the combination of claims 1-7 of U.S. Pat. '451 and Whipple '215 show where $m = 2a + 1$ (a being a positive integer) (i.e., see claim 2 of U.S. Pat. '451).

Regarding claim 23, noted that claim 23 of the instant application is encompassed by claims 1-7 of U.S. Pat. '451 and Whipple '215 (please see claims 3-4 and 6-7 of U.S. Pat. '451).

Regarding claim 24, noted that claim 24 of the instant application is encompassed by claims 1-7 of U.S. Pat. '451 and Whipple '215 (please see claims 3-4 and 6-7 of U.S. Pat. '451).

Regarding claim 39, it is noted that claims 1-7 of U.S. Pat. '451 disclose a controller (i.e., control means as recited in claims 1-7 of U.S. Pat. '451) for reading out color image signal from a destructive read-out type imager with a primary color Bayer filter (i.e., noted claim 2 U.S. Pat. '451), said controller comprising: a mode selector unit (i.e., noted the control means and a multi-step switch as recited in claims 1-7 of U.S. Pat. '451) configured to select one plural read-out modes according to usage of said color image signal read from the imager, said read-out modes including: (a) a mode for reading out gamut of the imager for use with recording a still picture (i.e., noted the third operation mode as recited in claims 1-7 of U.S. Pat. '451); (b) a mode for reading out with summing every " n " lines in unit of ' m ' lines within the gamut (i.e., the first mode as recited in claims 1-7 of U.S. Pat. '451) of the imager for use with controlling AE and AWB function (i.e., noted that the first and second modes as recited in claims 1-7 of U.S.

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Pat. '451 is used for AE and AWB; see claims 1-7 of U.S. Pat. '451); and (c) a mode for reading out with summing of q lines in unit of q successive lines to be read-out within partial imaging area of the imager for use with controlling AF function (i.e., noted that the first and second modes as recited in claims 1-7 of U.S. Pat. '451 is used for AF, AE and AWB; see claims 1-7 of U.S. Pat. '451).

Furthermore, it is noted that claims 1-7 of U.S. Pat. '451 does not explicitly state the summing of first and third lines of the image sensor as recited in present claimed invention.

However, the above-mentioned claimed feature is well known in the art as clearly evidenced by Whipple '215. In particular, Whipple '215 teaches the summing of first and third lines of the image sensor as recited in present claimed invention (i.e., see Fig. 5 of Whipple '215).

In view of the above, having the well-established teaching of Whipple '215, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as recited in claims 1-7 of U.S. Pat. '451 as taught by Whipple '215, since Whipple '215 states at col. 1, lines 55+ that such a modification would provide a faster frame rate and increase sensitivity while decreasing image memory.

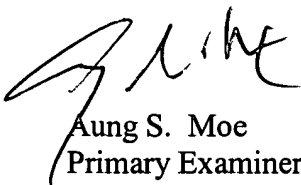
Regarding claim 40, it is noted that claim 40 correspond to claim 39 as discussed above, thus, claim 40 is encompassed by claims 1-7 of U.S. Pat '451 and Whipple '215 as discussed above (i.e., please see the Examiner's comment with respect to claims 15-17, 19-24 and 39 as discussed above).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 703-306-3021. The examiner can normally be reached on Mon-Fri (9-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Aung S. Moe
Primary Examiner
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A. Moe
June 14, 2004